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EG&G ROCKY FLATS

000064385

INTEROFFICE CORRESPONDENCE

DATE: November 10, 1994

TO: M. D. Klein, D & D Project Management, Bldg. 779, X6950

FROM: R. W. Norton, Radiological Engineering, Bldg. T690B, X4075

SUBJECT: BASELINE RADIOLOGICAL CHARACTERIZATION SURVEY FOR BUILDING 889
RWN-046-94

Attached is the draft of the baseline characterization Survey, revision 1 that was requested by D&D projects for building 889. Please submit comments back to me by close of business November 17,1994.

If you have any questions please contact me at Extension 4075.

rwn

attachment:
As Stated

cc:
K. D. Anderson
T. J. Corbett
M. L. Littleton
J. D. Raffaldi
C. S. Reed
D. A. Russell
J. W. Gay

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BASELINE RADIOLOGICAL CHARACTERIZATION SURVEY

BUILDING 889

NOVEMBER 10, 1994

SUBMITTED BY:

DENNIS A. RUSSELL

RICHARD W. NORTON

RADIOLOGICAL ENGINEERING

I, "RADIOACTIVE

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I. EXECUTIVE SUMMARY

Decontamination & Decommissioning (D&D) Management requested Radiological Protection Environmental Restoration & Waste Management (RPER&WM) to prepare a survey plan to allow the demolition of Building 889. This plan will be broken down into 3 phases. In phase 1, detailed in this document, the entire building will be divided into grids and surveyed to provide the baseline characterization of the building. The second phase will consist of all the in-process surveys needed during the gridding and baseline survey process and during ripout activities to ensure the radiological condition of rooms not involved in the ripout activities are not effected. Phase III will consist of the final surveys to determine which rooms/building materials can be released and which rooms/building materials will be disposed of as low level waste. The phase III plan will also provide for the necessary in-process surveys for the demolition.

-The phase I plan outlined in the following pages will ensure that sufficiently detailed radiological information will be obtained to allow preparation of the Integrated Work Control Packages (IWCPs) related to the D & D of Building 889.

-Building 889 has an extensive amount of permanently installed equipment which will be removed prior to demolition of the building. This survey will provide the data necessary to radiologically characterize the building prior to beginning ripout activities.

-Portions of the building have not been used for any radiological work and therefore will be released for unrestricted use based on the required surveys while other portions have been used extensively for many years and therefore may not be releasable for unrestricted use.

-This baseline characterization survey will give adequate information to determine the degree of radiological controls that will be required to perform ripout activities.

II. BACKGROUND

The purpose of this radiological characterization survey is to evaluate the radiological contamination that is presently affixed to the interior surfaces of the building. This plan will facilitate later decisions on what radiological controls will be necessary for ripout activities.

The primary source document used by Radiological Engineering for the development of the survey methodology was the Environmental Implementation Guide for Radiological Survey Procedures [Draft of November 1992] developed by the Department of Energy Office of Environmental Guidance.

The primary source document used to develop release criteria was DOE Order 5400.5, "Radiation Protection of the Public and the Environment" and DOE Order 5480.11, "Radiation Protection for the Occupational Worker".

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III. HISTORY OF BUILDING 889

The original Building 889 was constructed in approximately 1968 as a decontamination facility for uranium and beryllium equipment. See Figures 1 and 2 for location of rooms. The original building included an office (presently room 100), locker room (presently room 102), mechanical equipment and storage room (presently room 104), hood room (presently room 108), four decontamination rooms (presently rooms 106 and 108), and a mezzanine area (room 200) above the mechanical equipment room. The original building was enclosed by concrete masonry units (CMU). The fume hoods and B-boxes that were installed have been removed.

In 1969 a CMU wall was constructed to separate what is presently room 106 and room 108.

In 1974 room 101 was enclosed with CMU walls.

In 1982 the process waste floor drains and inlet and outlet piping to the process waste holding tank were cemented and capped. These items are presently under Operable Unit (OU) 9.

In approximately 1987 the sump pumps were locked out/tagged out and the process waste piping was capped at its exit in Building 865. This is also under OU 9.

In approximately 1987 a 47 feet by 51 foot addition, also known as room 112 was constructed on the east side of Building 889. The purpose of the addition was to house a new heating/cooling unit and a multi-stage HEPA filter exhaust plenum that would solve air balance problems in the existing facility. During operational start-up testing it was determined that the deluge system for the newest filter plenum did not provide adequate coverage to the upper section of the filters. The deluge system was redesigned but the Department of Energy decided not to provide any further funding for the project.

The following information was compiled from interviews with personnel that have worked in or have supported Building 889.

* There is no information on the radiological controls that were in place in the early days of operation of the facility.

- During the 1969 fire, circuit boards that may have contained low level contamination were sent to Building 889 from Building 776 for final decontamination. The equipment was rinsed in a solution and the solution was sampled prior to being released. [There is no documentation to back this finding] It is assumed in this document that residual amounts of plutonium may be present in rooms 106, 107, and 108.

- The inside of the building has been painted several times and there is no documentation available as to whether the area was surveyed prior to being painted.

- Decontamination of equipment was conducted in room 106. Room 108 was used to crush HEPA filters from Buildings 881, 883, 865, and 444. The filters contained beryllium and uranium contamination. It is assumed that rooms 106, 107, and 108 contain uranium (U-235 and U-238) and beryllium contamination.

IV. PRESENT USE OF BUILDING 889

There is no work being conducted in the building (some materials which have been left in the building over the years are in the process of being removed). Currently, rooms 106, 107, and 108 are being controlled as RCAs.

V. GENERAL CHARACTERIZATION SURVEY METHODS AND MATERIALS

Risk levels will be assigned to each room of the facility. The following risk levels have been assigned based on the history of activities that occurred in the room and the probability that contamination may have been spread to these areas. Risk level I areas are those with the highest probability of contamination being found and risk level III areas are those with the lowest probability of contamination being found based on the histories of the areas.

* RISK LEVEL I: Risk level I will be assessed to areas with the greatest potential of contamination based on history of operations. These areas will be divided into one meter grids due to the higher probability that contamination was spread to these areas.

* RISK LEVEL II: Risk level II will be assessed based on the history of operations that the work performed was not at a level of high activity and the potential for contamination is lower due to the operations that were performed. These areas will be divided into two meter grids due to the lower probability that contamination was spread to these areas.

* RISK LEVEL III: Risk level III will be assessed based on the history of operations that no work activity had occurred that could have the potential to spread contamination. These areas will be divided into three meter grids due to the extremely low probability that contamination was spread to these areas.

In rooms 100, 101, 101 mezzanine, 101A, 102, 104, and the hallway around rooms 101 and 101A the floors will be considered risk level II and the walls and ceilings will be considered risk level III. The floors are considered risk level II because those rooms are adjacent to areas where work was performed on contaminated components. There is some probability that contamination could have been tracked into these rooms due to poor radiological work practices that may have been used in the early days of this building. Since no work was actually performed in these rooms the probability of contamination being anywhere other than on the floor is considered very low. If any contamination is found on the floors the risk level associated with the other surfaces will be reevaluated.

In rooms 106 and 107 the floors and walls below six feet will be considered risk level I. The walls above six feet will be considered risk level II. The ceilings will be considered risk level III. Although decontamination work was performed in these rooms, the work was all with cold fluids and therefore the probability of contamination above the six foot mark is considered lower than the floor or walls below six feet. Furthermore, the ceiling has an even lower probability based on the work that was performed in these rooms. If any contamination is found on the floors or walls the risk level associated with the other surfaces will be reevaluated.

All the surfaces in rooms 105 and 108 will be considered risk level I. Room 108 was used for hot decontamination methods which could have spread contamination to all surfaces in the room due to high temperature fluids being used to perform decontamination work carrying particles throughout the room. Room 105 is a filter plenum room and is level I because of the high probability that contamination was spread throughout the room during HEPA filter changeout activities. The plenums in room 105 have no survey history; however, the inlets will be surveyed to aid in determining the extent of contamination present in the ductwork.

In rooms 109, 110, and 111 all surfaces will be considered risk level III. Since these rooms have not been used for any radiological work, nor are they adjacent to any rooms used for radiological work, they are considered to have an extremely low probability that contamination is present.

All the surfaces in room 112 including the mezzanine will be considered risk level III except a two meter wide floor area adjacent to room 106 which will be consider risk level I. Although this room is a recent addition there is a possibility that contamination might have been spread into this room from room 106. However the probability that contamination was spread pass the two meter wide area is considered extremely low. The plenum in the room is also considered to have an extremely low probability of contamination since it was never put into operation.

In room 200 the floors will be considered risk level II, and the walls and ceiling risk level III. Room 200 was a storage room above room 104 and there is some possibility that contamination was spread into this room from improperly surveyed equipment from the RCAs; however, the probability is low that contamination would have been spread to the walls or ceiling.

Within each grid, five random survey points will be selected. A direct alpha reading, a direct beta/gamma reading, and a smear sample counted for alpha and beta/gamma will be taken from each of the five sample points.

Additionally, there are three pits and several drain lines which are under OU 9 controls. In accordance with guidance received from OU 9 management, these areas will be sampled in a similar manner to the rest of the building. Copies of the correspondence providing this guidance are included in Appendix D.

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For the purpose of this plan, the limits for removable and fixed plus removable will be the limits that are in Radiological Operating Instruction 4-61300-ROI-03.02, Table I, "Radioactive Surface Contamination Limits for Unrestricted Release" provided in Appendix C.

If a direct reading taken in the grid is greater than the allowable limits, a more detailed scan survey will be performed. Radiological Engineering will provide additional guidance as necessary.

If a smear sample is above anticipated limits for the area being surveyed, the sample will be counted again after it decays for 1/2 hour. If the sample is still above the allowable limits, and shows no indication of decay, then Radiological Engineering will be notified for guidance on follow-up survey requirements.

VI. ALPHA SURVEY EQUIPMENT AND TECHNIQUE

The alpha fixed plus removable surveys will be conducted using a Bicron Frisk-Tech with the A100 detector to perform a 1 minute scan in accordance with ROI 6.5. A SAC-4 alpha scintillation counter will be used for counting smears for removable alpha contamination by counting for 1 minute in accordance with ROI 6.3. ROI 3.1 will be used for additional guidance on performance of surveys.

VII. BETA/GAMMA SURVEY EQUIPMENT AND TECHNIQUE

The beta/gamma fixed plus removable surveys will be conducted using the Bicron Frisk-Tech with the B50 detector to perform a 1 minute count in accordance with ROI 6.5. An Eberline BC-4 will be used for removable beta/gamma smear counting by counting for 1 minute in accordance with ROI 6.4. ROI 3.1 will be used for additional guidance on performance of surveys.

VIII. DOSE RATE SURVEYS

General area dose rate surveys will be performed to verify there are no high radiation dose levels. These surveys will not be repeated unless material movements occur which could effect the general area dose levels.

IX. BERYLLIUM CONTAMINATION

Industrial Hygiene will be informed of the work to be performed and will determine any special requirements concerning the possibility of beryllium contamination. Surveys for beryllium contamination will be coordinated through Industrial Hygiene.

X. RADON MONITORING

Kits for monitoring for radon will be installed in the building to determine if there is a radon contamination problem. Appropriate action will be taken upon obtaining results.

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XI. BASELINE RADIOLOGICAL CHARACTERIZATION SURVEY DOCUMENTATION REQUIREMENTS

All sample results will be documented and submitted on a daily basis to Radiological Operations Supervision for approval, in accordance with ROI 3.1, "Performance of Surface Contamination Surveys". All approved survey results shall be placed in a designated location for Radiological Engineering review and evaluation on a daily basis. Copies of surveys will be maintained by Radiological Engineering and by D & D as part the Building 889 Project History File.

Upon completion of the baseline characterization survey Phase I, Radiological Engineering will prepare a summary and evaluation report.

XII. MARKING GRID LOCATIONS

Grids will be marked on the surfaces using permanent means. Each grid will be identified using a permanent method. The grids will remain marked and numbered until completion of Building 889 D & D operations.

XIII. ESTIMATED TIMES

The following times are estimated for taking samples in each grid considering that there are five samples taken within each grid.

Alpha direct	= 5.0 minutes
Beta/gamma direct	= 5.0 minutes
Alpha/beta smear	= 0.5 minutes
Total sampling time within each grid	= 10.5 minutes
Time to mark each grid	= 10.0 minutes
Total time per grid	= 20.5 minutes
Total number of grids (excluding plenums)	= 912 grids
(Total number of samples)	=(4560 samples)
Total time to mark & survey grids	= 18696 minutes =312 hours
Time for RCT's to perform instrument checks (1 hr/day X 30 days)	= 30 hours
Total time to perform sampling	= 342 hours*

*This estimate does not include any time for additional sampling in areas where contamination above the limits is detected.

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Figure I. Floor Plan - First Floor Building 889

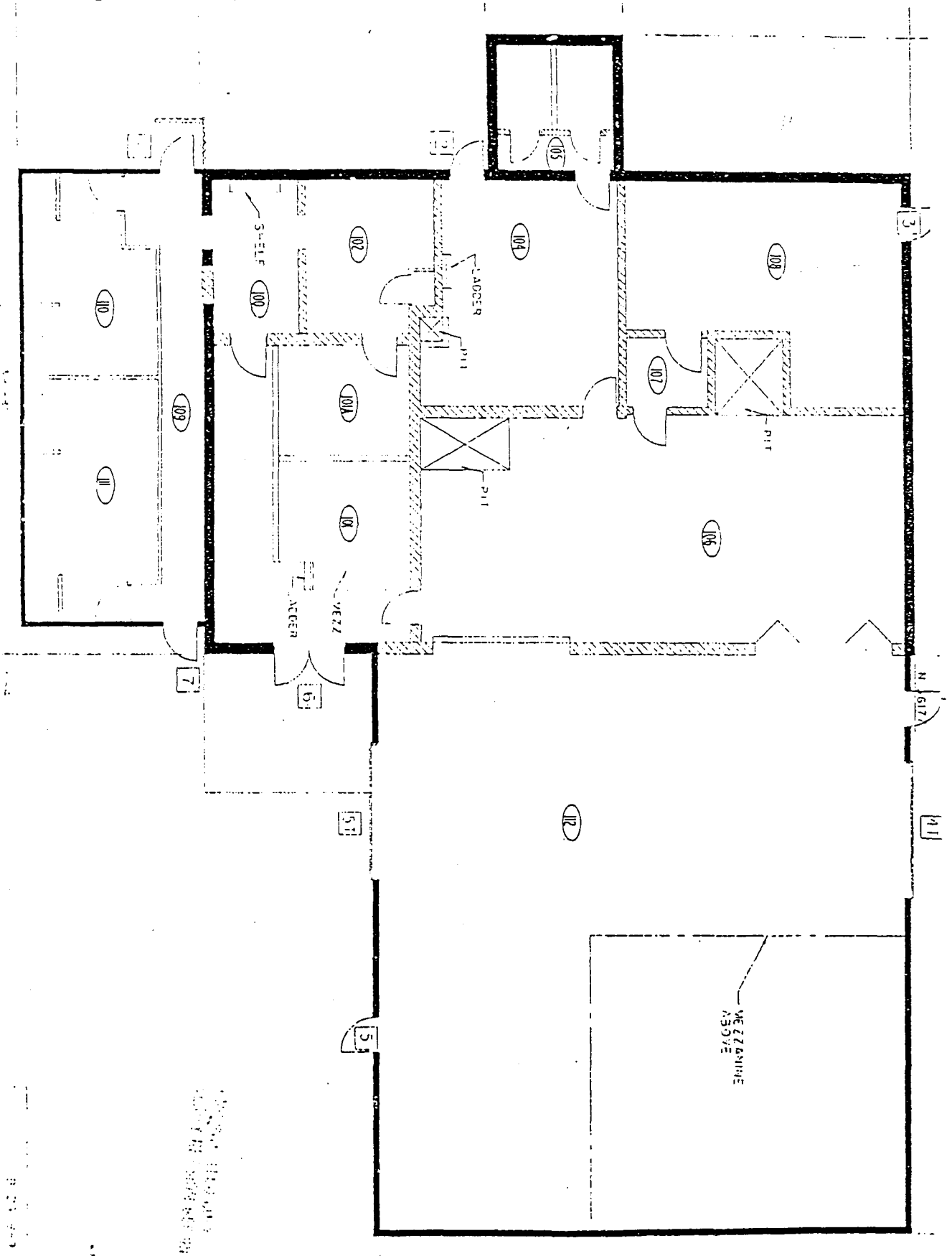
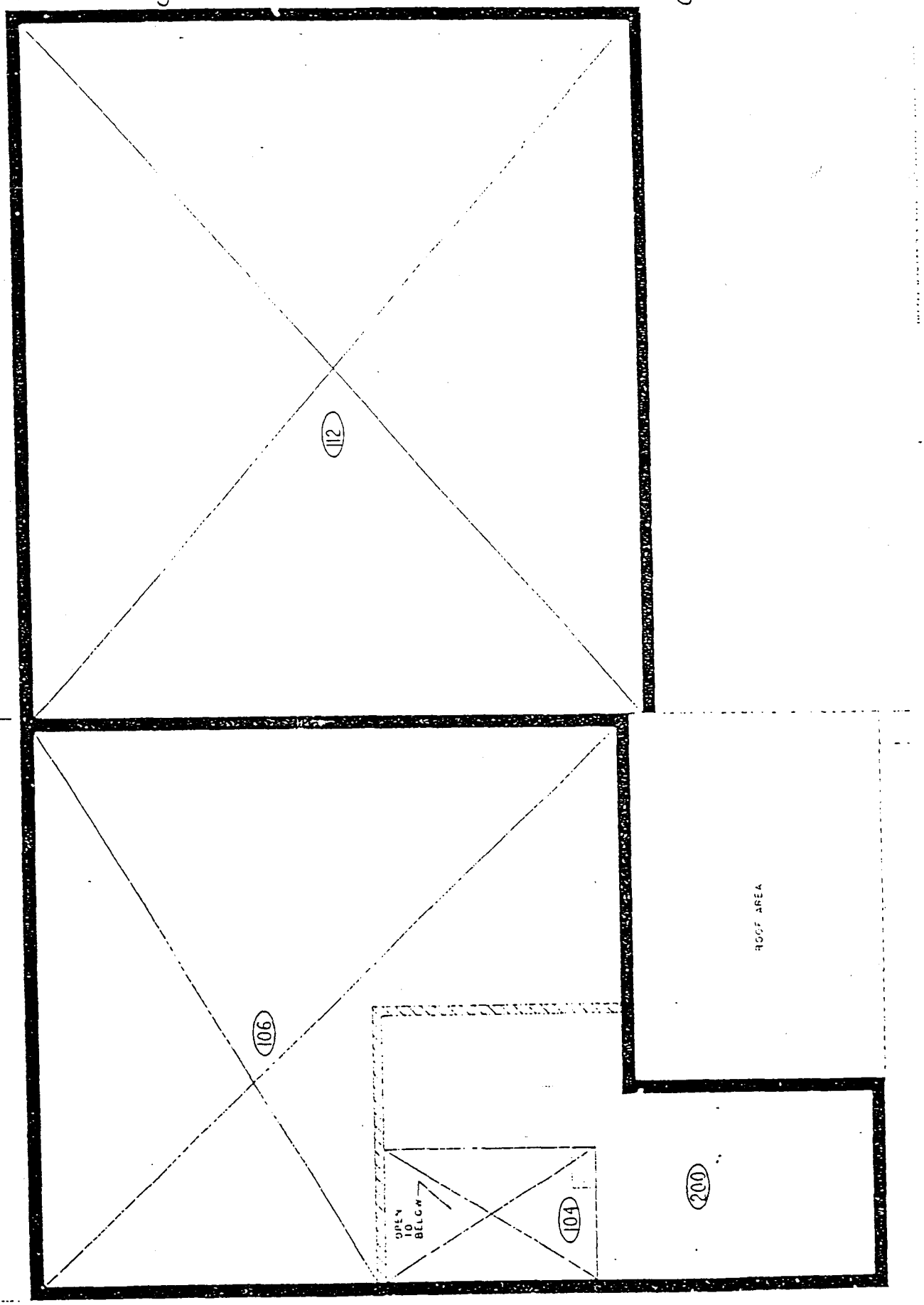


Figure 2. Floor Plan - Second Floor Building 889



BASELINE RADIOLOGICAL CHARACTERIZATION SURVEY

BUILDING 889

APPENDIXES

APPENDIX - A

ALARA REVIEW

(Since the number of grids decreased from those in Rev. 0, the ALARA Review/Dose Estimate was not revised since the job person-mr would decrease a negligable amount.)

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RE-1002, ALARA JOB REVIEW, APPENDIX C
ALARA PERSON-REM ESTIMATE WORKSHEET

JOB DESCRIPTION: This ALARA Person-Rem Estimate covers activities associated with the Baseline Radiological Characterization Survey of Building 889. The characterization survey will be performed by Radiological Control Technicians. The marking of the grids will be performed by Facility Operations personnel.

The radiological hazards associated with the performance of the baseline surveys in Building 889 are minor. Recorded radiation levels in the areas of concern are less than 1 mr/hr and contamination levels are less than 20 DPM/100 cm2. Some localized areas of fixed or removable contamination above the limits are anticipated to be found during the surveys of the building. However, based upon reviews of past contamination surveys and interviews with workers, it is not anticipated that removable contamination above 5000 DPM/100 cm2 will be found during characterization surveys. RWP's governing baseline survey work will specify appropriate precautionaryclothing to protect personnel from minor contact with low-level residual contamination.

Rooms to be included in this exposure extimate are only those within the RCA. These are rooms 104, 105, 106, 107, 108, and 200. Each of the rooms has been divided into different size grids based on their potential to have contamination present. Each grid will have five randomly picked survey points. Each survey point will have an alpha scan, beta/gamma scan, and a smear survey performed. For performance of this exposure estimate, it will be assumed that it will take 10.0 minutes (.167 hours) per grid to mark the grids and 10.5 minutes (.175 hours) per survey point to complete the required surveys. An exposure rate of 1 mr/hr is a conservative number based on the available surveys.

Room	Task	Time(#grids x hrs./grid X 1 Pers.)		Av. Dose (mR/Hr)		Pers.-mR
104	marking	110 X .167 X 1 Pers.	X	0.1	=	1.8
104	surveys	110 X .175 X 1 Pers.	X	0.1	=	1.9
105	marking	114 X .167 X 1 Pers.	X	0.1	=	1.9
105	surveys	114 X .175 X 1 Pers.	X	0.1	=	2.0
106	marking	204 X .167 X 1 Pers.	X	0.1	=	3.4
106	surveys	204 X .175 X 1 Pers.	X	0.1	=	3.6
107	marking	23 X .167 X 1 Pers.	X	0.1	=	0.4
107	surveys	23 X .175 X 1 Pers.	X	0.1	=	0.4
108	marking	248 X .167 X 1 Pers.	X	0.1	=	4.1
108	surveys	248 X .175 X 1 Pers.	X	0.1	=	4.3
200	marking	100 X .167 X 1 Pers.	X	0.1	=	1.7
200	surveys	100 X .175 X 1 Pers.	X	0.1	=	1.8
				Total Estimated Job Person-mR		27.3

Conclusions: The criteria for a more detailed ALARA review in HSP 1.02 was not met. Job/Task specific ALARA work practices and precautions for various phases of work will be specified in the individual RWP's supporting this job.

Radiological Building Engineer: D.A. Russell (Print) D.A. Russell 8/3/94 (Signature/Date)

ALARA Engineering Comments:

ALARA Engineering Approval: GARY L. MASTERS (Print) Gary L. Masters (Signature/Date) 8/3/94

APPENDIX B

BASELINE RADIOLOGICAL CHARACTERIZATION

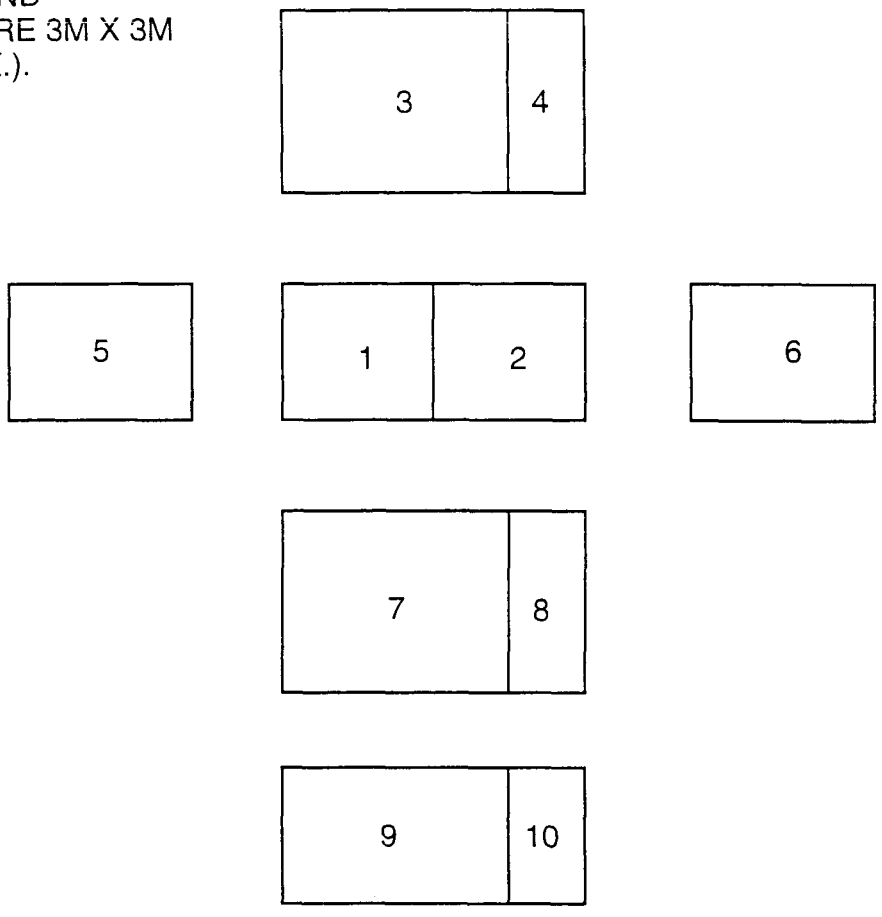
BUILDING 889

(The following grid maps are preliminary and may change upon commencement of work and a more detailed examination of the rooms to be surveyed. However, the number of grids in each room should not change. Maps for the plenums have not been provided because of the lack of detailed drawings. They will be developed after commencement of work in Building 889.)

BUILDING 889
ROOM 100

1. FLOOR IS 2M X 2M GRIDS (MAX.).

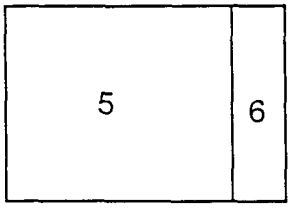
2. WALLS AND CEILINGS ARE 3M X 3M GRIDS (MAX.).

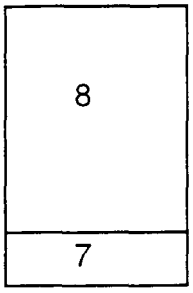


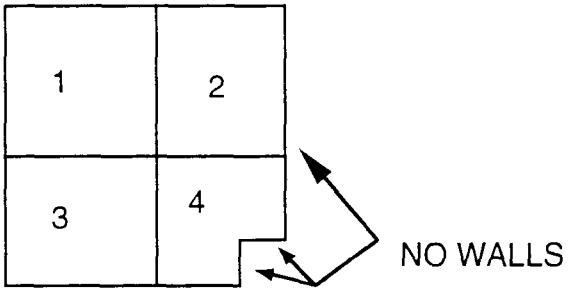
BUILDING 889
ROOM 101

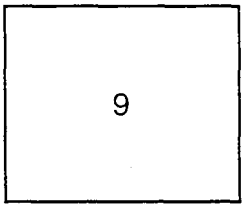
1. FLOOR IS IN 2M X 2M GRIDS (MAX.).

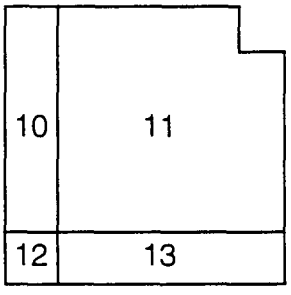
2. WALLS AND CEILING ARE IN 3M X 3M GRIDS (MAX.).







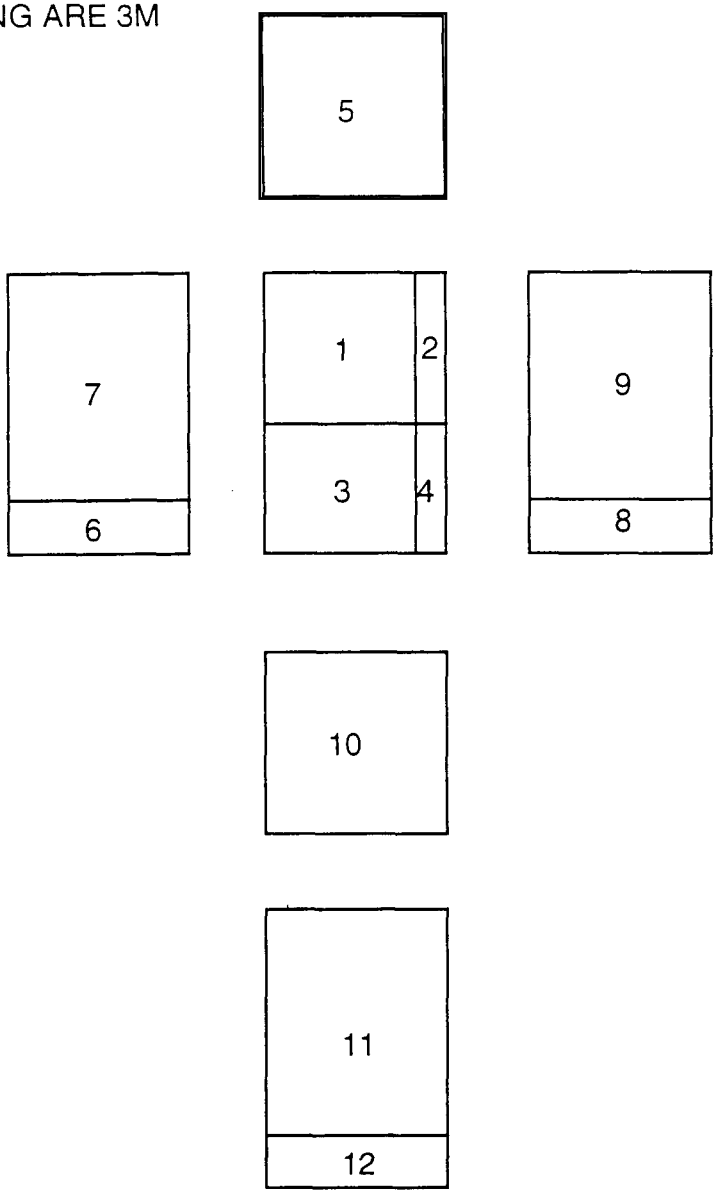




BUILDING 889
ROOM 101A

1. FLOORS ARE 2M X 2M GRIDS (MAX.).

2. WALLS AND CEILING ARE 3M X 3M GRIDS (MAX.).



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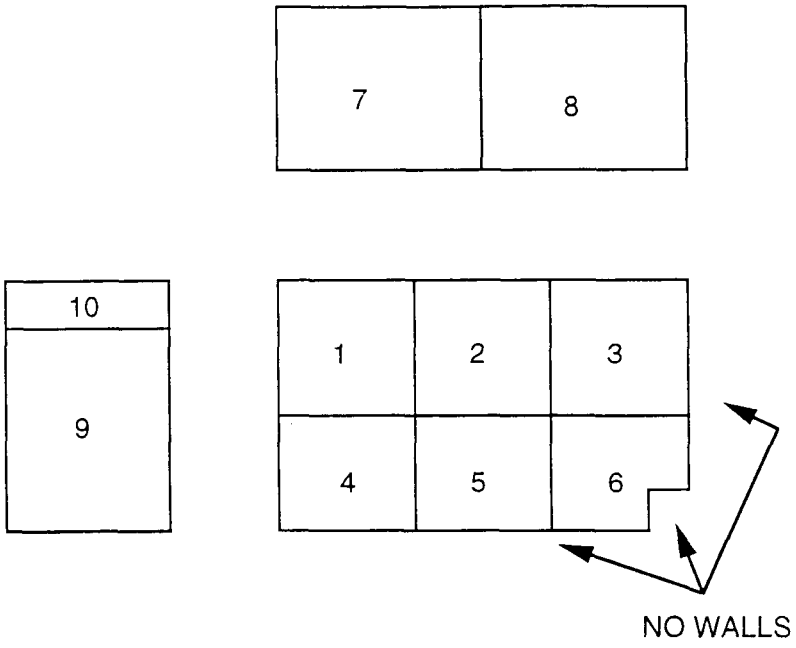
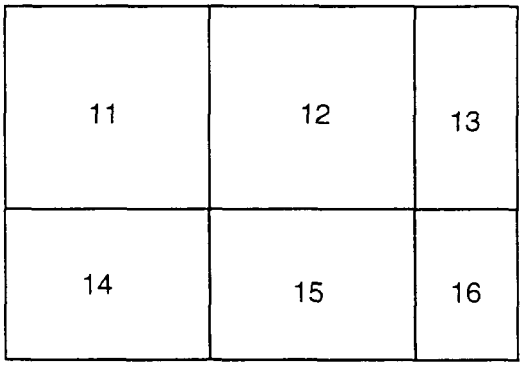
BUILDING 889
ROOM 101
MEZZANINE

1. FLOOR IS IN 2M X 2M GRIDS (MAX).

2. WALLS AND CEILING ARE IN 3M X 3M GRIDS (MAX).



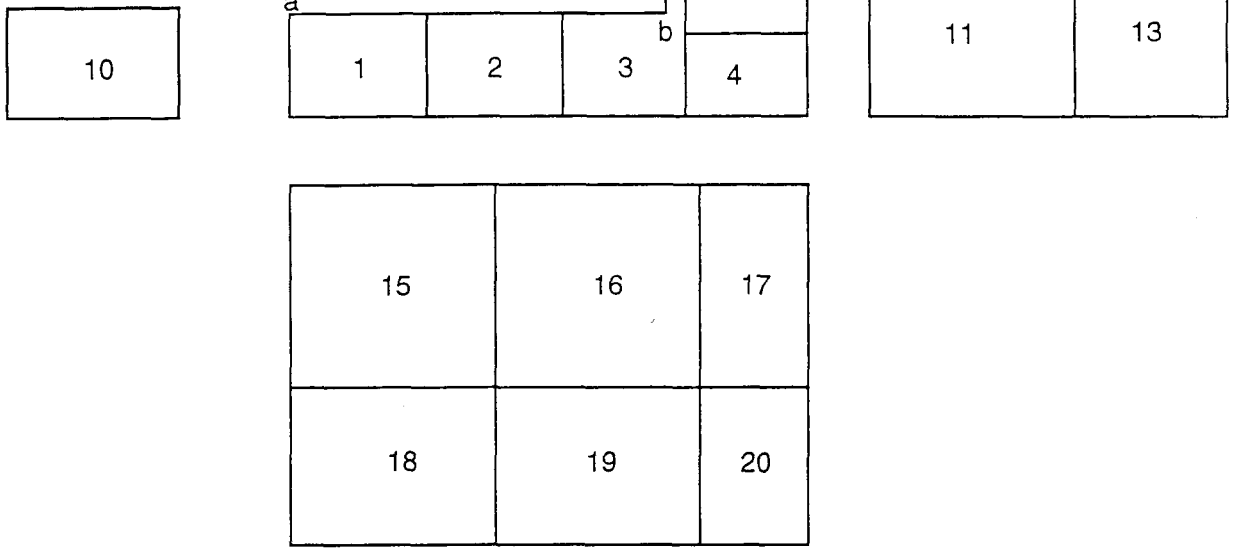
CEILING OF 101 MEZZANINE AND 101/101A HALLWAY →



BUILDING 889
HALLWAY
(AROUND ROOMS 101/101A)

1. FLOOR IS IN 2M X 2M GRIDS (MAX).

2. WALLS AND CEILING ARE IN 3M X 3M GRIDS (MAX).

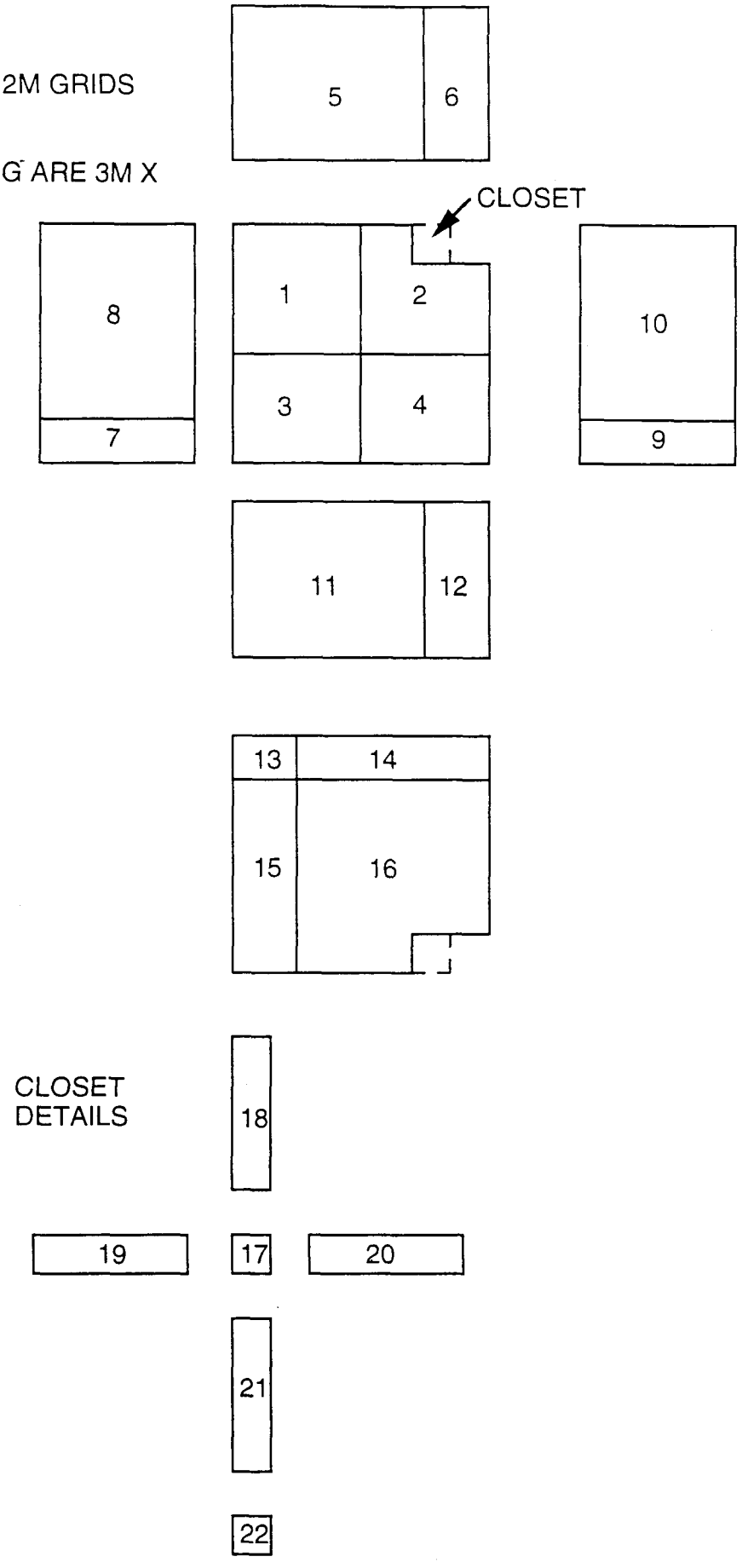


FOR CEILING OVER 101/101A HALLWAY SEE MAP FOR 101 MEZZANINE

BUILDING 889
ROOM 102

1. FLOORS ARE 2M X 2M GRIDS (MAX.).

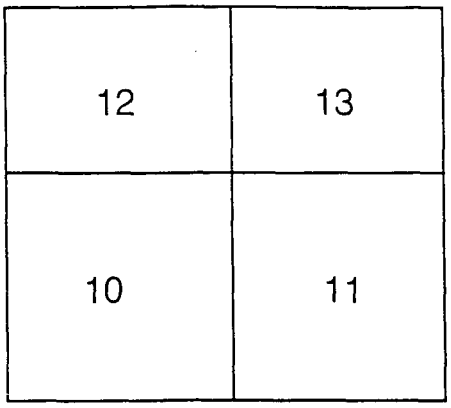
2. WALLS AND CEILING ARE 3M X 3M GRIDS (MAX.).

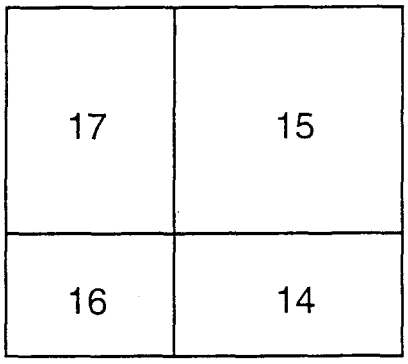


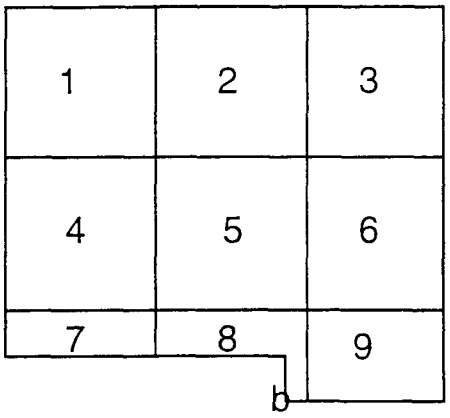
BUILDING 889
ROOM 104

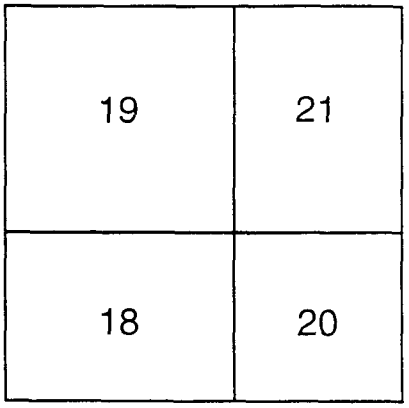
1. FLOOR IS IN 2M X 2M GRIDS (MAX.).

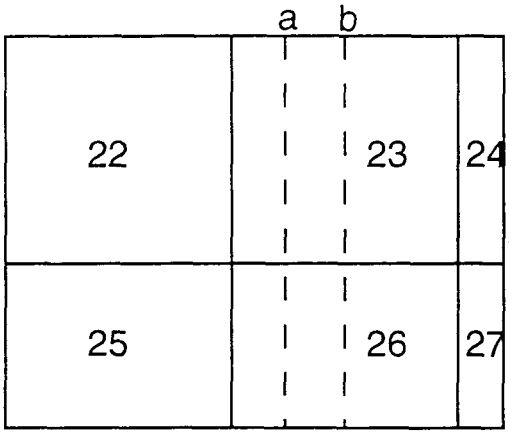
2. WALLS AND CEILING ARE IN 3M X 3M GRIDS (MAX.).

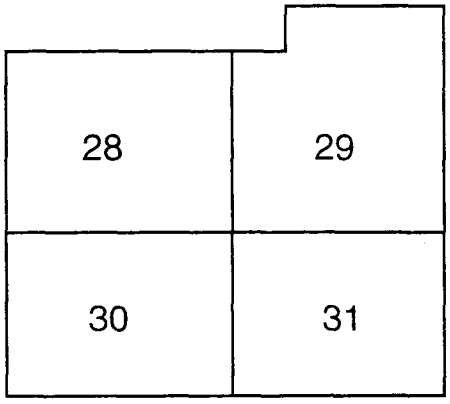












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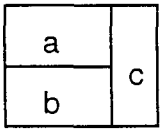
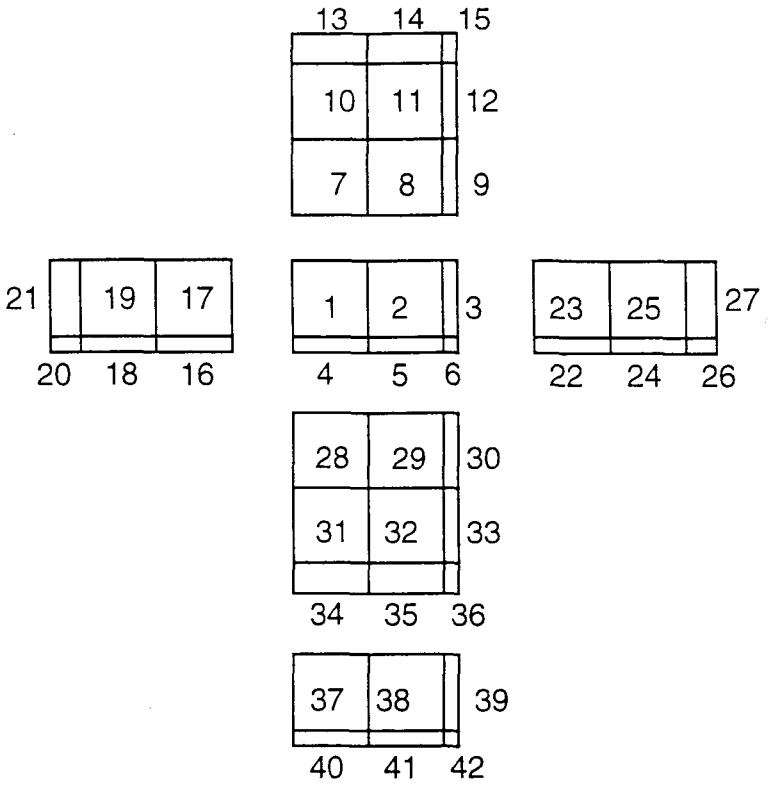
BUILDING 889
ROOM 105

ALL SURFACES 1M X 1M GRIDS (MAX.).

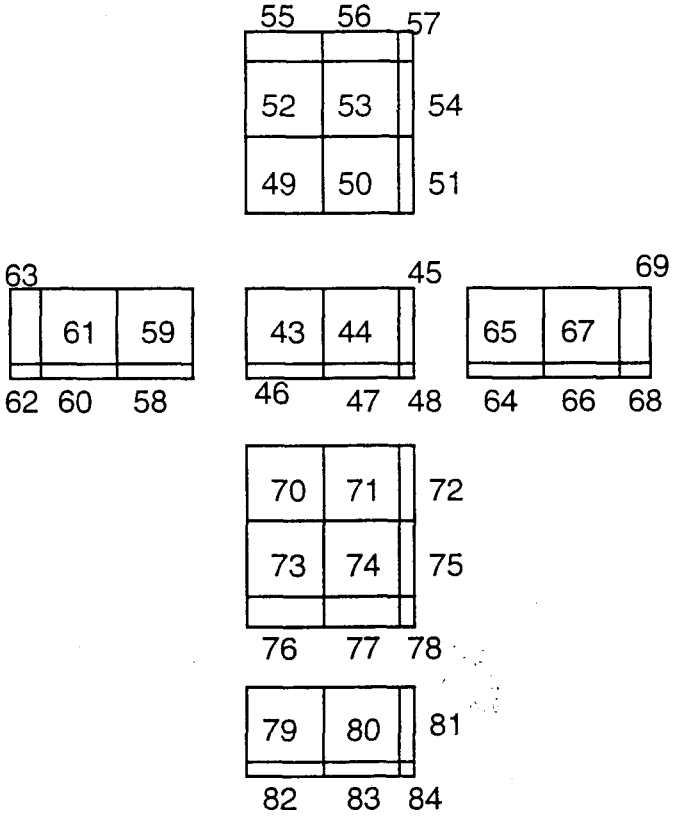
ROOM SUBDIVIDED INTO 3 ROOM AS SHOWN BELOW.



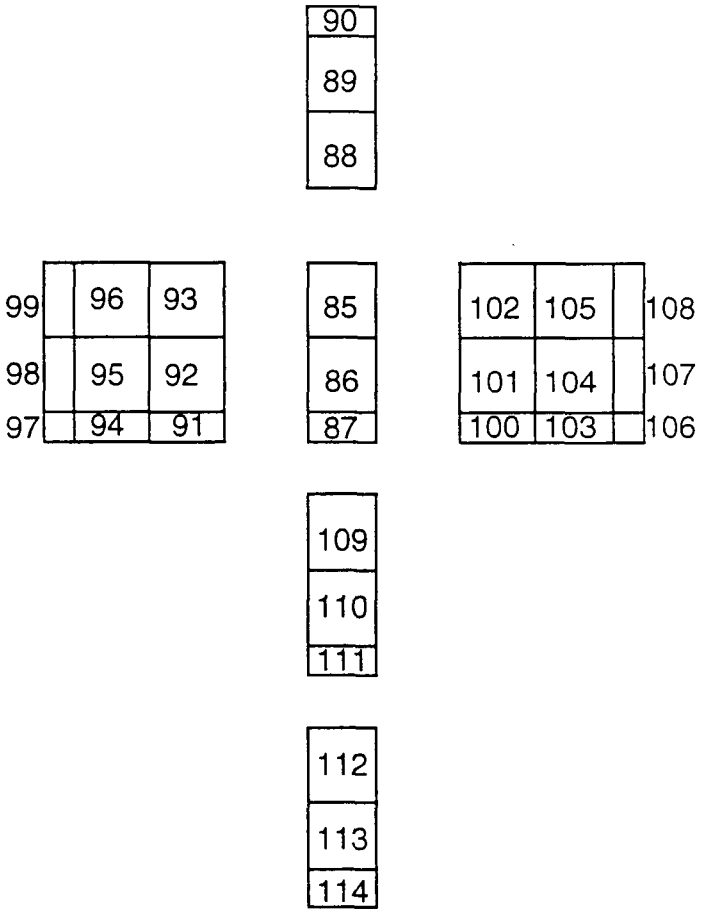
ROOM 105a



ROOM 105b



ROOM 105c



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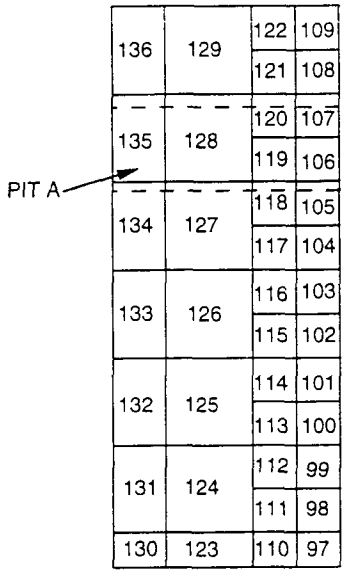
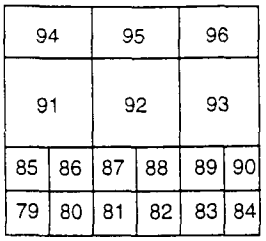
BUILDING 889
ROOM 106

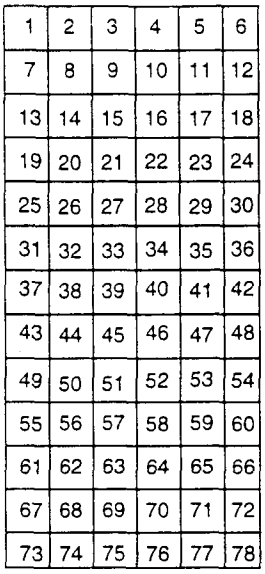
1. FLOOR AND WALLS LESS THAN 6 FEET ARE 1M X 1M GRIDS (MAX.).

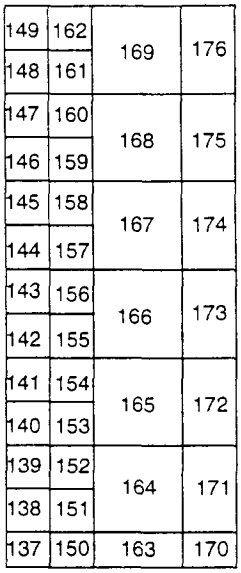
2. WALLS ABOVE 6 FEET ARE 2M X 2M GRIDS (MAX.).

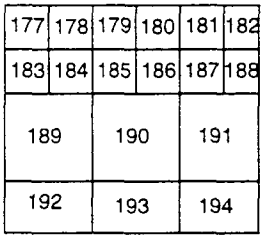
3. CEILING IS 3M X 3M GRID (MAX.).

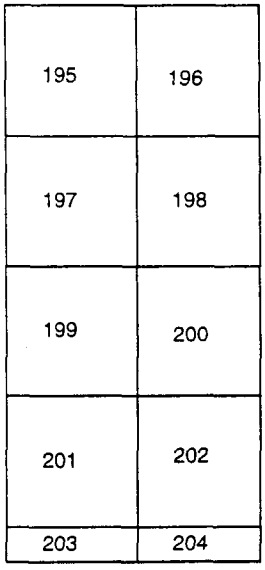










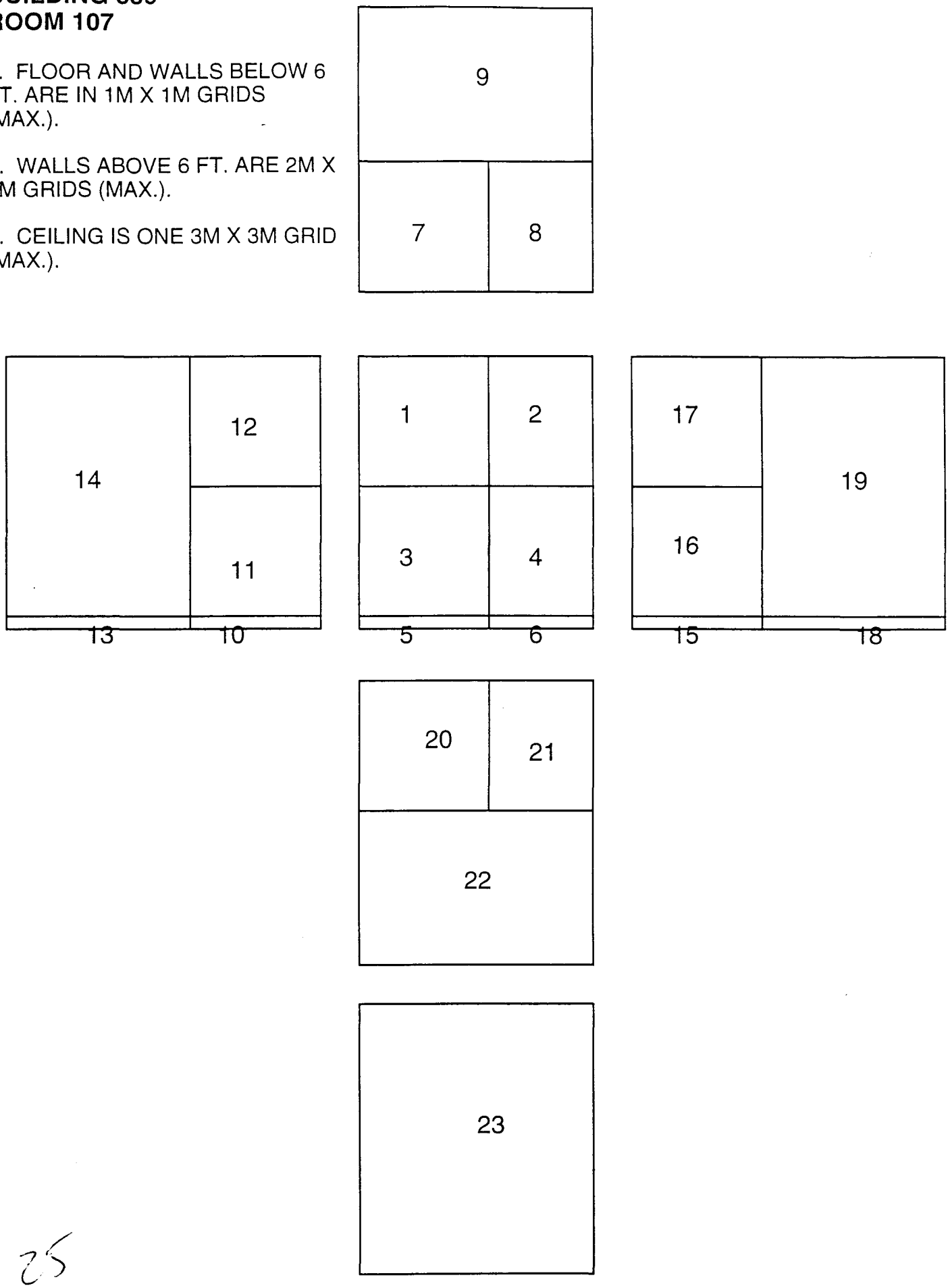


BUILDING 889
ROOM 107

1. FLOOR AND WALLS BELOW 6 FT. ARE IN 1M X 1M GRIDS (MAX.).

2. WALLS ABOVE 6 FT. ARE 2M X 2M GRIDS (MAX.).

3. CEILING IS ONE 3M X 3M GRID (MAX.).



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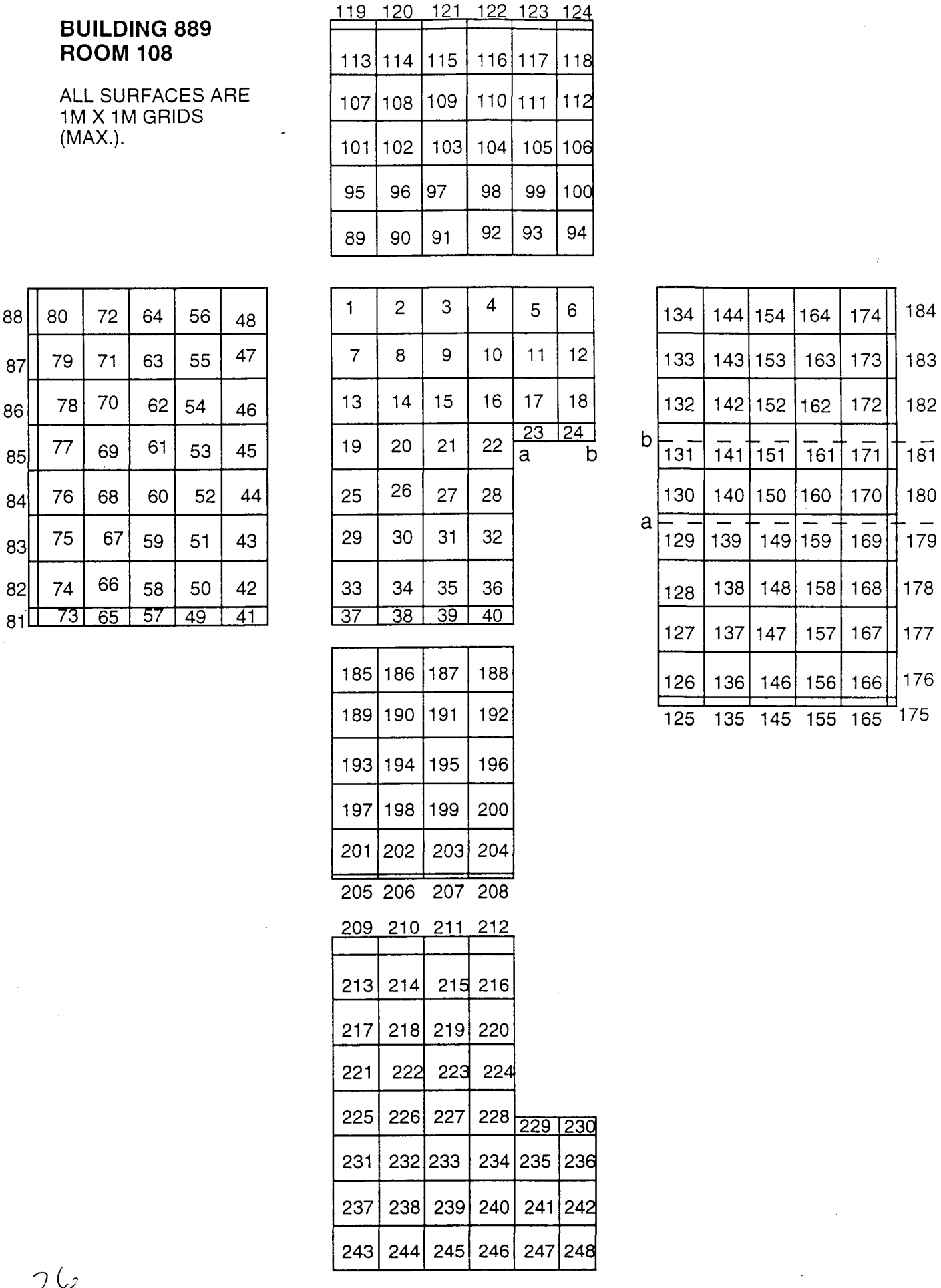
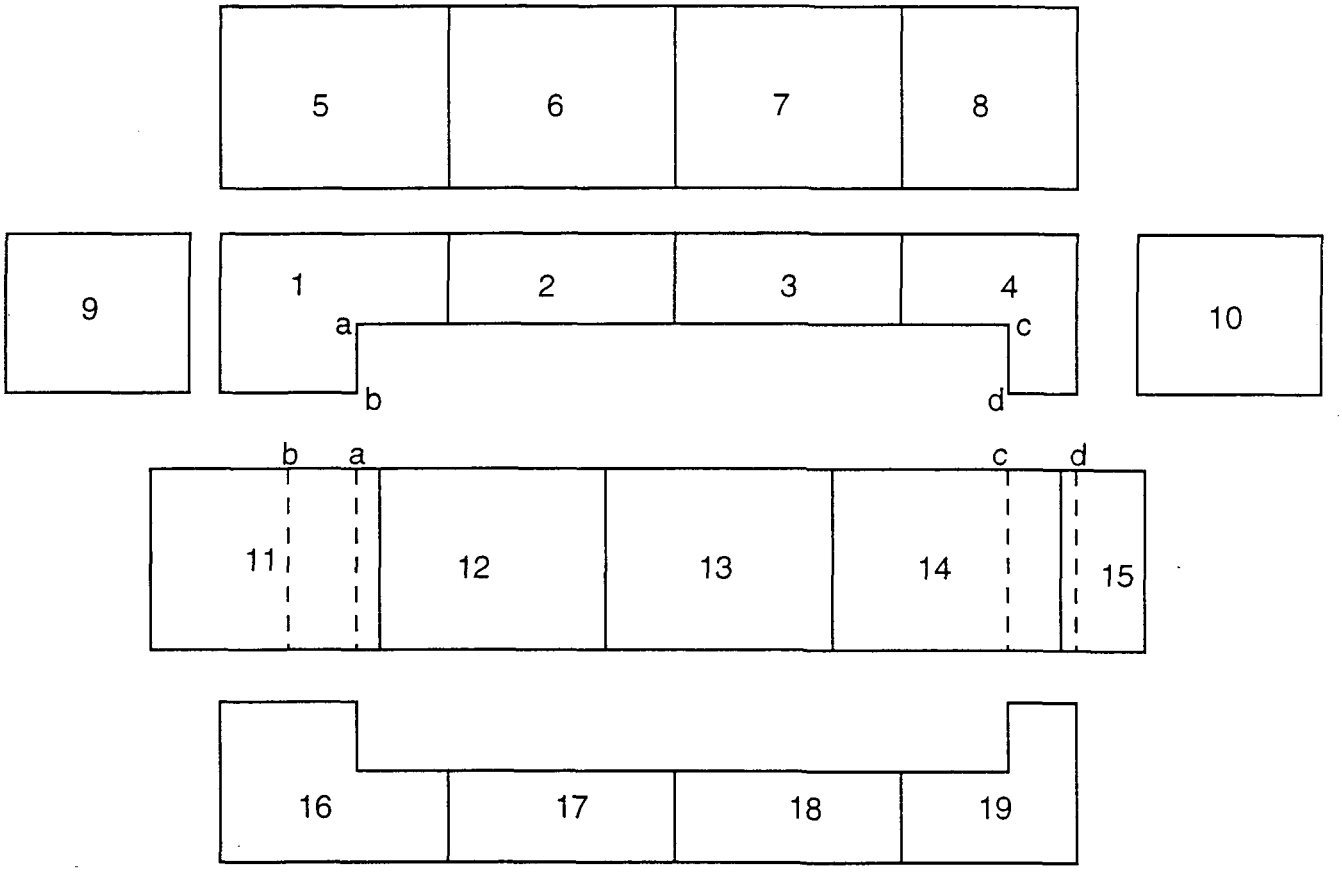
BUILDING 889
ROOM 108

ALL SURFACES ARE
1M X 1M GRIDS
(MAX.).



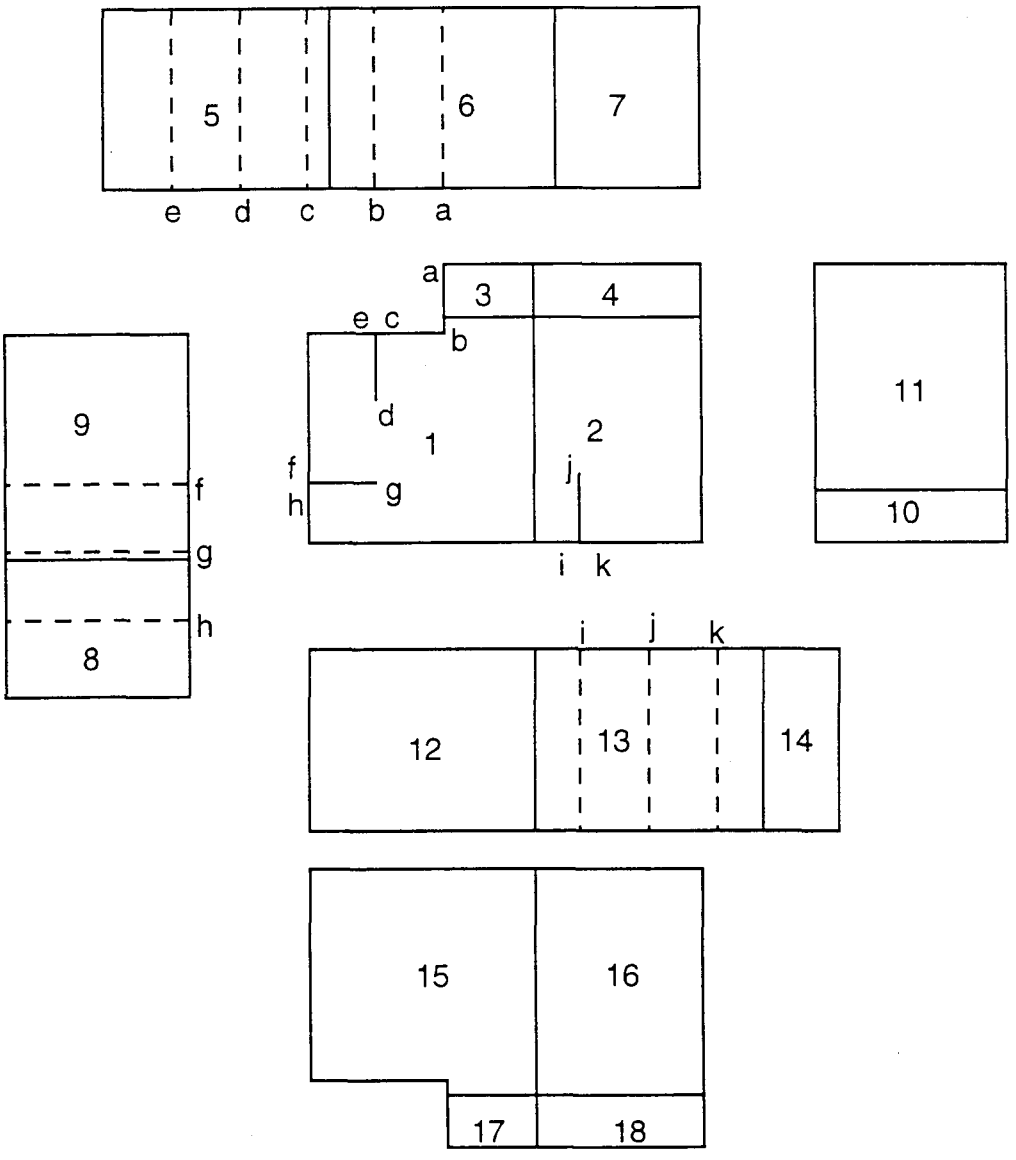
BUILDING 889
ROOM 109

ALL SURFACES ARE
3M X 3M GRIDS (MAX.).



BUILDING 889
ROOM 110

ALL SURFACES ARE
3M X 3M GRIDS
(MAX.).



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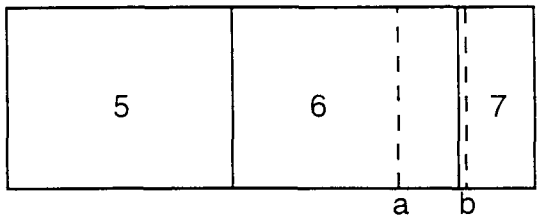
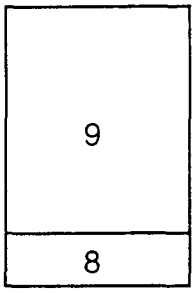
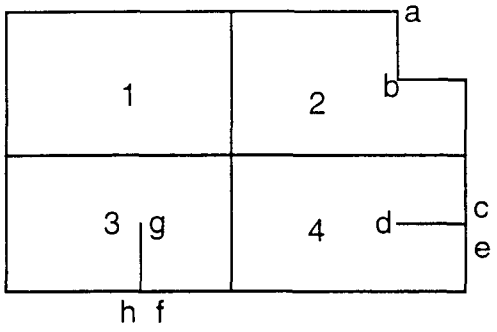
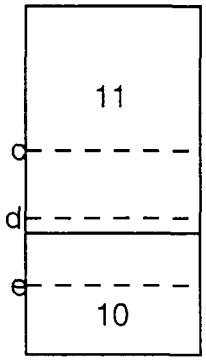
BUILDING 889
ROOM 111

ALL SURFACES ARE IN 3M X 3M GRIDS (MAX.).

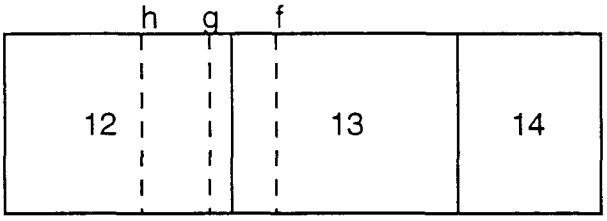


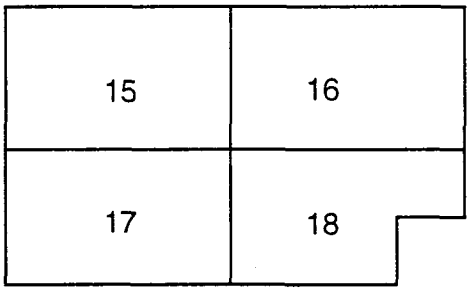






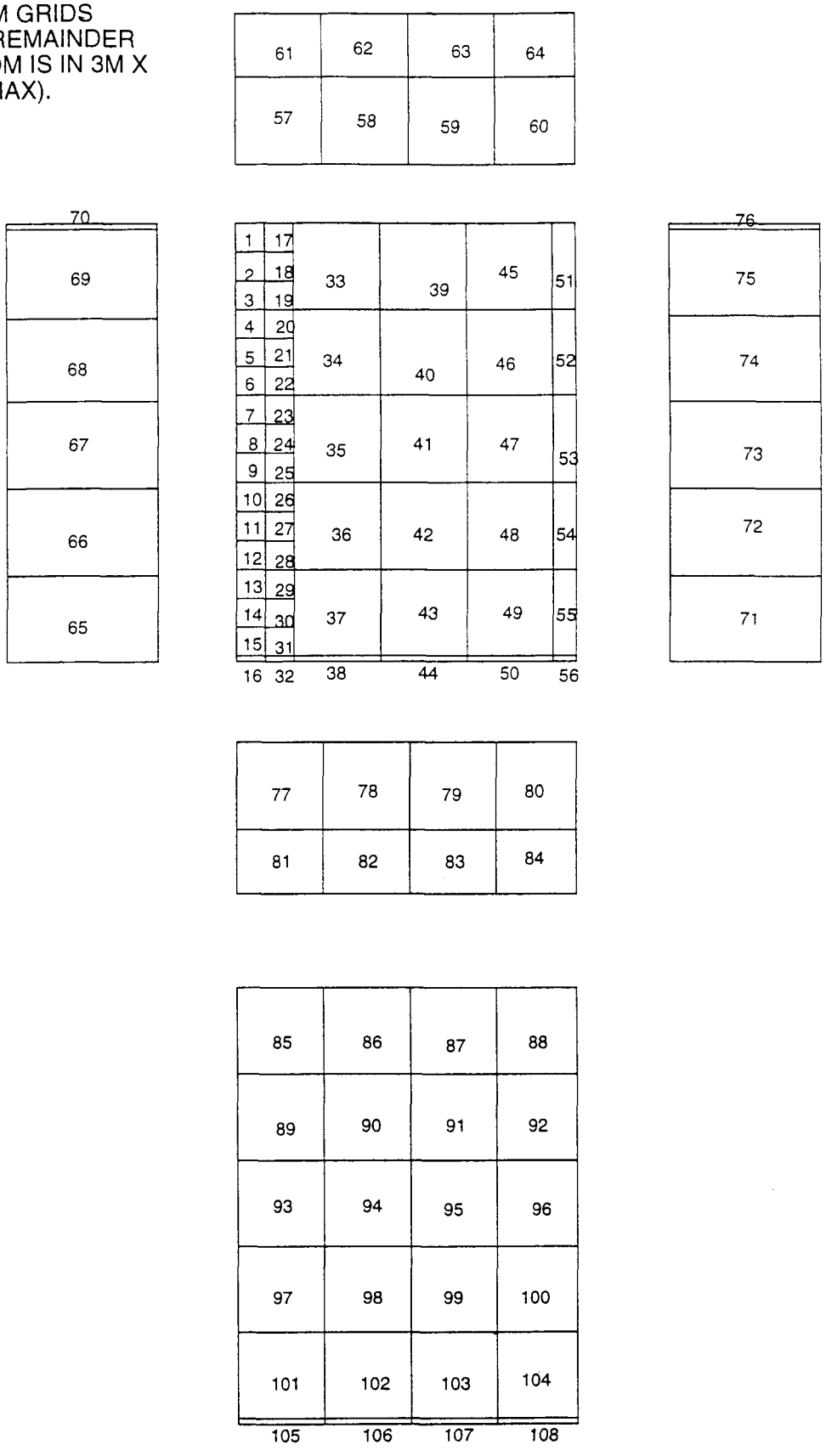
THE FLOOR AND CEILING GRIDS HAVE BEEN ADJUSTED TO HAVE 4 GRIDS IN LIEU OF SIX GRIDS WITH TWO OF THESE HAVING A WIDTH OF .1 METERS (ALL 4 ARE LESS THAN 9 SQ. METER IN AREA).





BUILDING 889
ROOM 112

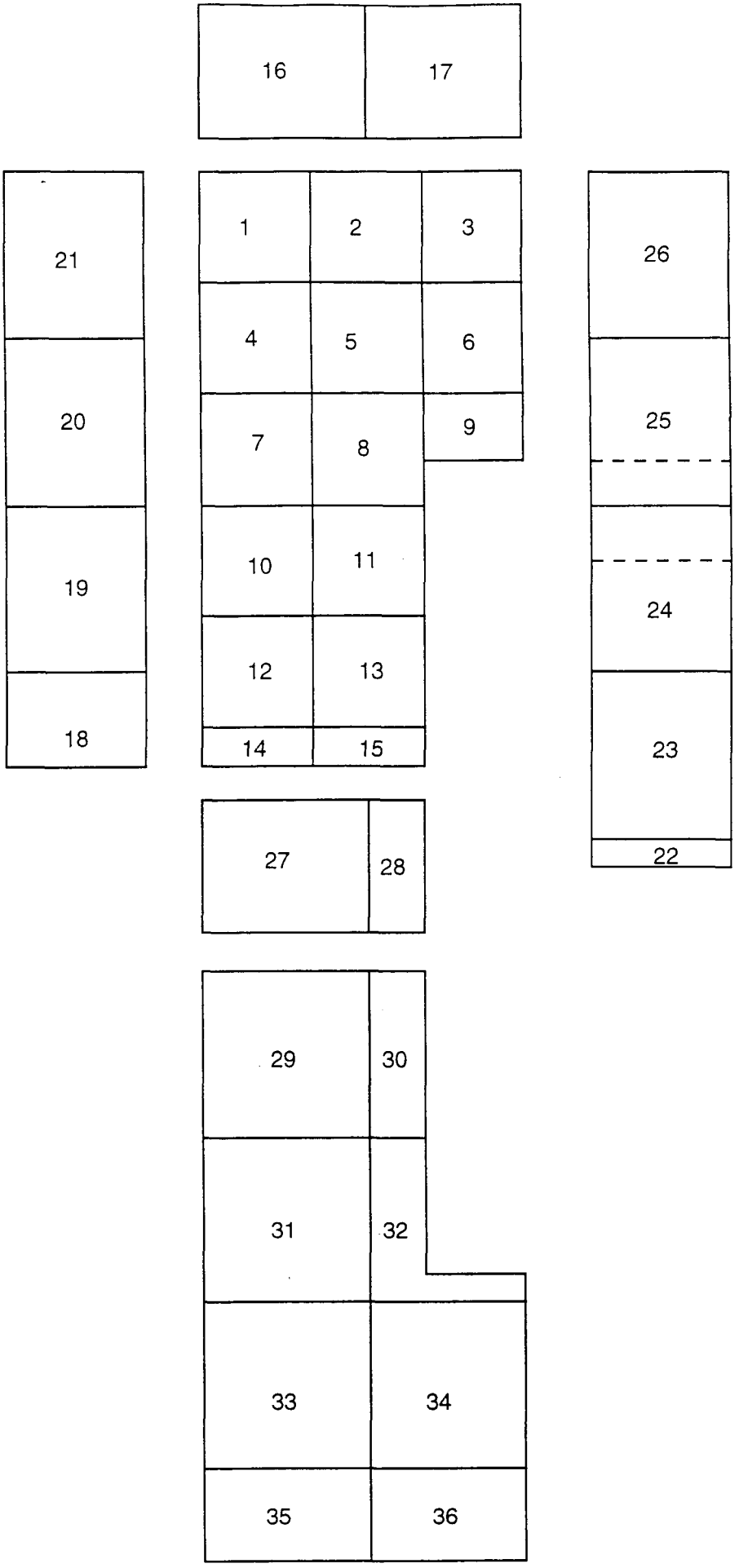
TWO METERS OF FLOOR ADJACENT TO ROOM 106 IS IN 1M X 1M GRIDS (MAX), THE REMAINDER OF THE ROOM IS IN 3M X 3M GRIDS (MAX).



BUILDING 889
ROOM 200

1. FLOOR IS IN 2M X 2M GRIDS (MAX.).

3. WALLS AND CEILING ARE IN 3M X 3M GRIDS (MAX.).



APPENDIX C

RADIOLOGICAL OPERATING INSTRUCTION 4-61300-ROI-3.02

TABLE I

RADIOACTIVE SURFACE CONTAMINATION LIMITS FOR UNRESTRICTED RELEASE

6.2 Surface Contamination Limits

6.2.1 Surface contamination limits for unrestricted releases are listed below:

Table I. Radioactive Surface contamination Limits for Unrestricted Release.

Radionuclides [2]	Average Total [3,4] (Fixed + Removable) (dpm/100 cm^2) [1]	Maximum Total [4,5] (Fixed + Removable) (dpm/100 cm^2) [1]	Removable [4,6] (dpm/100cm^2)[1]
Transuranics, I-125, I-129, Ra-226, Ac-227, Ra-228, Th-228, Th-230, Pa-231	100 [8]	300	20
Th-Natural, Sr-90, I-131, I-133, Ra-223, Ra-224, U-232, Th-232	1,000	3,000	200
U-Natural, U-235, U-238, and associated decay product, alpha emitters.	5,000	15,000	1,000
Beta-gamma emitters (radionuclides with decay modes other than alpha emission or spontaneous Fission) except Sr-90 and others noted above. [7]	5,000	15,000	1,000

Notes:

1) As used in this table, dpm (disintegrations per minute) means the rate of emission by radioactive material as determined by correcting the counts per minute measured by an appropriate detector for background, efficiency, and geometric factors associated with the instrumentation.

2) Where surface contamination by both alpha and beta-gamma emitting radionuclides exists, the limits established for alpha and beta-gamma-emitting radionuclides should apply independently.

3) Measurements of average contamination should not be averaged over an area of more than 1 m^2. For objects of less surface area, the average should be derived for each object.

APPENDIX D

COPY OF LETTER TO MANAGER OPERATIONAL UNIT 9

EG&G ROCKY FLATS

INTEROFFICE CORRESPONDENCE

DATE: August 2, 1994

TO: C. R. Cowdery, Industrial Area OU Management, Bldg. 080, X6953

FROM: R. W. Norton, Radiological Engineering, Bldg. T690B, X4075

SUBJECT: RADIOLOGICAL SAMPLING WASTE PITS AND DRAINS IN BUILDING 889
RWN-034-94

Radiological Engineering at the present time is writing a radiological sampling plan for D&D Operations to determine the contamination levels inside Building 889.

Inside Building 889 are three waste pits (tanks) and drains that are under the controls of Operable Unit (OU) 9. If contamination is found on the surface inside the tanks, the sampling plan requires that paint and concrete samples be taken to determine the extent of contamination. Radiological Engineering is requesting written guidance as to what methods that can used to determine the extent of the contamination under the paint and into the concrete.

Please send your response to R. W. Norton Building T690B.

If you have any questions, please contact me at Extension 4075.

rwn

cc:
K. D. Anderson
T. J. Corbett
D. B. Kent
D. A. Russell

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EG&G ROCKY FLATS

INTEROFFICE CORRESPONDENCE

DATE: August 4, 1994

TO: R. W. Norton, Radiological Engineering, Bldg. T690B, X4075

FROM: C. D. Cowdery, Industrial Area OU Closures/D&D Team, Bldg. 080, X6953

SUBJECT: RADIOLOGICAL SAMPLING WASTE PITS AND DRAINS IN BUILDING 889 - CDC-009-94

DOE Order: 4700.1

Action: None required.

This memorandum is in response to your correspondence concerning the three floor sumps (tanks) and drains inside Building 889 that are to be sampled to ascertain contamination extent.

Only the Original Process Waste Line (OPWL) tanks and pipelines are Operable Unit (OU) 9. Our plans only show two sumps in Building 889 as being part of OU 9. If you are aware of any additional floor sumps or tanks that are part of the OPWL, please notify me so that we can resolve this.

My position as to what methods should be used for determining the contamination levels are simple. As long as the integrity of the tank is maintained, and the concrete is not altered in such a way that exposes or disturbs soil, any devised sampling method will work. This will presumably involve surface chipping of the concrete and some method of scraping the paint that will not alter the tank integrity in terms of containment.

Removal/remediation actions may require a Proposed Action Memorandum or an Interim Remedial Action Plan. This has been discussed with T. R. DeMass of Decontamination and Decommissioning (D&D).

Other than the above concerns we do not foresee any problems with sampling the tanks. If you have any questions, with this matter, please do not hesitate to call me.

CDC:alk

cc:
K. D. Anderson
T. J. Corbett
D. P. Craft
T. R. DeMass
S. R. Keith
D. B. Kent
B. D. Peterman
D. A. Russell
ERM Records Center (2)

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APPENDIX E

RESPONSES TO COMMENTS RECEIVED FROM DOE

The following are responses to comments received from the DOE RFFO in memorandum ER:WNF:09667 dated September 13, 1994 on the Baseline Radiological Characterization Survey, Building 889, Rev. 0 dated August 8, 1994.

Comment #1 Response. Explanations for the different risk levels and how they were determined have been expanded, particularly in rooms where different risk levels were assigned in the same room.

Comment Response. Paragraph IX has been revised to state that surveys for beryllium contamination will be coordinated through Industrial Hygiene. It should be noted that there is a separate plan for hazardous material characterization.

Comment #2 Response. Paragraph XI has been revised to state that Radiological Engineering will keep copies of surveys. D & D will also develop a Project History File which will include the survey results. Details on both of these files will be formalized and documented in future correspondence.

Comment #3 Response. The survey maps that were included in Rev. 0 have been removed due to other comments received and the fact that they have no bearing or involvement with this work. The survey maps and results sheets for this particular work will be developed by Radiological Engineering and provided to Radiological Operations to ensure that documentation is traceable and meaningful.

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